

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)
12. (Canceled)
13. (Canceled)
14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (New) An electrode assembly comprising an electrode holder for an electrode and an electrode cooling device arranged underneath said electrode holder and comprising cooling-water spray nozzles having bores and being directed at the electrode, characterized in that the nozzles are equipped with a compressed air supply.

22. (New) The electrode assembly as claimed in claim 21, characterized in that the compressed air supply opens out into the bores of the spray nozzles.

23. (New) The electrode assembly as claimed in claim 21, characterized in that a row of spray nozzles is arranged on or in a wall of the cooling device and connected to the wall along this row is a compressed air line, from which connecting bores lead to the bores of the spray nozzles.

24. (New) The electrode assembly as claimed in claim 21, characterized in that the spray nozzles have openings and a shield which covers the direct spraying direction from a bath or an arc to the openings is provided underneath the openings of the spray nozzles.

25. (New) The electrode assembly as claimed in claim 24, characterized in that, underneath the spray nozzles, the cooling device comprises a wall which runs transversely in relation to the direction of the electrode and an edge of which protrudes further toward the electrode than the nozzles, to form the shield.

26. (New) The electrode assembly as claimed in claim 21, characterized in that the electrode cooling device is electrically insulated from the electrode holder.

27. (New) The electrode assembly as claimed in claim 21, characterized in that the electrode cooling device essentially covers the underside of the electrode holder.

28. (New) The electrode assembly as claimed in claim 21, characterized in that the electrode cooling device is fastened to fixed parts of the electrode holder and is supported on a movable part of the electrode holder.

29. (New) The electrode assembly as claimed in claim 21, characterized in that releasable fastening and supporting elements for the electrode cooling device are arranged above cooled parts of the same.

30. (New) The electrode assembly as claimed in claim 29, characterized in that the releasable fastening and supporting elements are accessible from the side.

31. (New) The electrode assembly as claimed in claim 22, characterized in that a row of spray nozzles is arranged on or in a wall of the cooling device and connected to the wall along this row is a compressed air line, from which connecting bores lead to the bores of the spray nozzles.

32. (New) The electrode assembly as claimed in claim 22, characterized in that the spray nozzles have openings and a shield which covers the direct spraying direction from a bath or an arc to the openings is provided underneath the openings of the spray nozzles.

33. (New) The electrode holder as claimed in claim 23, characterized in that the spray nozzles have openings and a shield which covers the direct spraying direction from a bath or an arc to the openings is provided underneath the openings of the spray nozzles.

34. (New) The electrode assembly as claimed in claim 31, characterized in that the spray nozzles have openings and a shield which covers the direct spraying direction from a bath or an arc to the openings is provided underneath the openings of the spray nozzles.

35. (New) The electrode assembly as claimed in claim 22, characterized in that the electrode cooling device is electrically insulated from the electrode holder.

36. (New) The electrode assembly as claimed in claim 23, characterized in that the electrode cooling device is electrically insulated from the electrode holder.

37. (New) The electrode assembly as claimed in claim 24, characterized in that the electrode cooling device is electrically insulated from the electrode holder.

38. (New) The electrode assembly as claimed in claim 25, characterized in that the electrode cooling device is electrically insulated from the electrode holder.

39. (New) The electrode assembly as claimed in claim 22, characterized in that the electrode cooling device essentially covers the underside of the electrode holder.

40. (New) The electrode assembly as claimed in claim 23, characterized in that the electrode cooling device essentially covers the underside of the electrode holder.